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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,062	02/12/2007	Michael Hopkinson	70347	3537

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Syngenta Corp Protection, Inc.
410 Swing Road
Greensboro, NC 27409

EXAMINER

BROWN, COURTNEY A

ART UNIT	PAPER NUMBER
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1617

MAIL DATE	DELIVERY MODE
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10/01/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,062	Applicant(s) HOPKINSON ET AL.	
	Examiner COURTNEY BROWN	Art Unit 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgement of Receipt/Status of Claims

This Office Action is in response to the amendment filed June 28, 2010. Claims **1-12** and **14-21** are pending in the application. Claims 1,3 and 7-8 have been amended. Claims 14-21 are newly added. Claims **1-12** and **14-21** are being examined for patentability.

Withdrawn Rejections

Applicant's amendments and arguments filed June 28, 2010 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed below is herein withdrawn.

The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application. The rejection of claims 1-12 under 35 U.S.C. 103(a) as being unpatentable over Hudson (US Patent 5,704,961) in view of Cones (US 6,924,250 B2) has been withdrawn in favor of a new rejection using references which provide a better motivation to arrive at the claimed invention.

New Rejection(s)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-12 and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burke (US Patent 5,620,678) in view of both Cones (US 6,924,250 B2, previously cited) and Hudson (US Patent 5,704,961, previously cited).

Applicant's Invention

Applicant claims a pesticide concentrate comprising: a) 2-85% by weight water; b) 5-90% by weight of at least one pesticide; c) an amount of an ionic nitrate salt additive effective in reducing corrosion of metal surfaces and d) optionally, other formulation auxiliaries wherein the ratio of component c) to component b) is less than or equal to 0.3:1.

***Determination of the scope and the content of the prior art
(MPEP 2141.01)***

Burke teaches various formulations of insecticidal aerosols. Specifically, Burke teaches a formulation comprising 1.25 % pyrethrum as an insecticide component, 0.300% Oleamide DEA as a corrosion inhibitor component, and 33.172 % deionized water (see Example IV, column 3, lines 50-60). Burke teaches that the aerosol insecticidal composition consists essential of organophosphate active insecticidal ingredient in the range of 0.01%-10% (see claim 1 of Burke) and that the aerosol may include sodium nitrate as a corrosion inhibitor (see column 2, lines 32-34).

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

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Burke does not expressly teach the use of 5-90% of a copper or zinc chelate of mesotrione as a pesticide. However, the use of 5-90% of a copper or zinc chelate of mesotrione was known in the prior art. For example, Cornes teaches that pesticide formulations comprising mesotrione may contain as little as about **0.5% to as much as 95%** or more in a synergistic combination of mesotrione and a second herbicide (column 4, lines 25-29). Cornes teaches that, when used in the form of a chelate, mesotrione is most preferably used in the form of a **copper chelate** (column 2, lines 11-16). Cornes teaches that their synergistic combination could be formulated as an aerosol (column 5, lines 18-25).

Burke does not expressly teach a pH of 6 or less and a ratio of component c (the ionic nitrate corrosion inhibitor) to component b (the pesticide component) instantly claimed. However, the prior art teaches that both the pH and the ratios of corrosion inhibitors are result-effective variables. For example, Hudson teaches that protection by corrosion inhibitors is retained at lower pH values as opposed to higher pH values (column 6, table 4, lines 50-end) and that the ratios of corrosion inhibitors should be optimized according to factors such as viscosity of the resultant mixture and the afforded corrosion protection (column 3, lines 16-23; column 4, lines 6-12).

Burke does not expressly teach the use of a formulation auxiliary in the form of a salt comprising at least one alkali metal or alkaline earth metal chloride. However, the use of an alkali metal or alkaline earth metal chloride in compositions comprising

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corrosion inhibitors were known in the prior art. For example, Hudson teaches the use of potassium chloride (column 2, lines 59-64).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teaching of Burke by substituting their pesticide with the synergistic pesticide combination of Cornes, with a reasonable expectation of success. Burke teaches that in water-solvent-based aerosol compositions, the corrosion inhibitor is added to protect the aerosol can from corrosion which would otherwise occur due to the can's contact with the water ingredient (column 3, lines 2-5). Cornes teaches that the use of an aerosol-formulated copper or zinc chelate of mesotrione in combination with other pesticides was known at the time the invention was filed. Thus, the claims would have been obvious because the substitution of one pesticide in a water-solvent-based aerosol composition for another pesticide would have yielded predictable results to one of ordinary skill in the art at the time of the invention. One of ordinary skill in the art would have been motivated to make such a substitution with the expectation of formulating a water-solvent-based aerosol composition that does not corrode the aerosol can during use. Therefore, the claimed invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made.

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because every element of the invention has been fairly suggested by the cited reference.

Regarding the claimed pH, Hudson teaches that corrosion protection is retained at **lower pH values** (column 6, table 4). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to engage in routine experimentation to determine optimal or workable pH ranges that produce expected results. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Aller, 220 F. 2d 454, 105 USPQ 233 (CCPA 1955).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teaching of Burke and use an alkali metal or alkaline earth metal chloride as taught by Hudson. Hudson teaches that using alkali metal or alkaline earth metal chloride in pesticide compositions comprising corrosion inhibitors was conventional in the prior at the time the instant invention was filed. Thus, this claimed element was known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Regarding the claimed ratio of the ionic nitrate salt additive to the pesticide component and the concentration range of the ionic nitrate salt additive, wherein the

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ratio is less than or equal to 0.3:1 and the concentration range is 0.001-10%, Hudson teaches that the ratio of corrosion inhibitor is a result effective variable (column 3, lines 16-23; column 4, lines 6-12). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to engage in routine experimentation to determine optimal or workable ratio ranges that produce expected results. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Aller, 220 F. 2d 454, 105 USPQ 233 (CCPA 1955).

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Examiner's Response to Applicant's Remarks

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Applicant's arguments, filed November 4, 2008, with respect to the 103 rejection of claims 1-12 under 35 U.S.C. 103(a) as being unpatentable over Hudson (US Patent 5,704,961) in view of Cones (US 6,924,250 B2) have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The claims are not allowed.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney A. Brown whose telephone number is 571-270-3284. The examiner can normally be reached on 9:00 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fereydoun Sajjadi can be reached on 571-272-3311. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Courtney A. Brown
Patent Examiner
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/Ileana Popa/
Primary Examiner, Art Unit 1633